(2) Amended Claims

1. (Originally presented)   Method for determining the propulsion force (40), its eccentricity (52) in relation to the neutral axis (N) and/or the advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in soft, stony and/or rocky ground, using a pressing device (24) and on the faces fluid-filled expansion elements (44) arranged in the joints (70) of the pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), the fluid pressure (p) and/or the deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and the values stored and/or compared with stored standard values.

2. (Originally presented) Method for controlling the propulsion force (40), minimising its eccentricity (52) in relation to the neutral axis (N) and/or the advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in soft, stony and/or rocky ground, using a pressing device (24) and on the faces fluid-filled expansion elements (44) arranged in the joints (70) of the pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), the fluid pressure (p) and/or the deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and the values converted into control commands for the pressing device (24) and/or the individual fluid supply to or individual fluid discharge from the expansion elements (44).

3. (Originally presented) Method according to claim 1 or 2, characterised in that the deformation, preferably expansion or shear deformation, is measured in all joints (70).

4. (Originally presented) Method according to any of claims 1 or 2, characterised in that the deformation, preferably expansion in a joint (70), is measured at least at three points preferably distributed regularly over the periphery and the geometry of the expansion plane of the joint (70) is determined.

5. (Currently amended)   Method according to any of claims 1 or 2 to 4, characterised in that the fluid pressure (p) of an expansion element (44) which are divided into sectors is measured in each section (A, B, C) and individual fluid quantities supplied or extracted in sections by corresponding control command.

6. (Originally presented) Method according to claim 5, characterised in that a header piece (30) is controlled with the front expansion element (44).

7. (Currently amended)   Method according to any of claims 1 or 2 to 6, characterised in that the fluid pressure (p) is measured in an expansion element (44) filled with a pressure-resistant fluid.

8. (Currently amended)   Method according to any of claims 1 or 2 to 7, characterised in that the fluid 15 pressure (p) is measured in an expansion element (44) which in cross-section is circular, oval, elliptical or round in the direction of at least one face (42) of the pipe element (18).

9. (Currently amended)   Method according to any of claims 1 or 2 to 8, characterised in that the ratio of force exerted (K_1) to force permitted (K_2) is calculated and monitored periodically or continuously, and when

$$\frac{K_1}{K_2} \geq 1$$

preferably an alarm is triggered.

10. (Currently amended)   Method according to any of claims 1 or 2 to 9, characterised in that the parameters which are measured on pre-compression of the expansion element (44) in the pressing shaft (12) are stored.

11. (Currently amended)   Method according to any of claims 1 or 2 to 10, characterised in that analysis takes place in real time.

12. (Originally presented) Use of the method according to claim 1 for quality control.